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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,765	04/19/2005	Jean Laurencot	LAURENCOT2	3764

7590 07/16/2010

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EXAMINER	
LU, JIPING	

ART UNIT	PAPER NUMBER
3743	

MAIL DATE	DELIVERY MODE
07/16/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,765	LAURENCOT, JEAN	
	Examiner	Art Unit	
	Jiping Lu	3743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/15/2010,5/4/2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *8-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *3/15/2010*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Status

1. Claims 1-7 are cancelled. Claims 8-22 are now in the case.

Supplemental Response

2. Applicant's supplemental reply was received in the Office on 5/4/2010. This supplemental response has not been entered because: (1) the supplemental response was filed after the expiration of the period for reply set in the last Office Action mailed on 9/15/2009; and (2) pursuant to 37 CFR 1.111(a)(2), a response that is supplemental to a response that is in compliance with 37 CFR 1.111(b) will not be entered as a matter of right.

Information Disclosure Statement

3. The information disclosure statement filed 3/15/2010 fails to comply with 37 CFR 1.97(c) because it lacks a statement as specified in 37 CFR 1.97(e). It has been placed in the application file, but the information referred to therein has not been considered.

4. The information disclosure statement filed 3/15/2010 fails to comply with 37 CFR 1.97(c) because it lacks the fee set forth in 37 CFR 1.17(p). It has been placed in the application file, but the information referred to therein has not been considered.

5. It is noted that applicant submitted a copy of Article and statements on 3/15/2010 without an Information Disclosure Statement. 37 CFR 1.98(b) requires a list of all patents, publications,

or other information submitted for consideration by the Office. Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claims 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosenau (U. S. Pat. 4,356,641).

Rosenau teaches a method of treating top and bottom sealed woody material within two chambers (at 20, 21 and at 22, 23). The high temperature heat treatment is controlled by monitoring means 15, humidity sensors 13, 14, 16-18, temperature sensors 20-23, heating means 12 and circulating heat transfer fluid 19. The heating method is same as claimed in claim 8. The sensors 13-23 permanently monitor and measure conditions and compare data in each chamber. After the high temperature heat treatment, the resultant woody material will posses or preserve some kind of physical properties with mechanical, acoustic and insulating characteristics. Based on the data received, the operations of heater 12, blower 19 and heating cycle regulator 15 are capable to be adjusted and based on the claimed formula (claim 8, lines 15-23). With regard to the claimed mathematical functions and formula, they are deemed to be conventional, common practice and common sense in the heating art. Therefore, it would have been obvious to one skill in the art at the time the invention was made to govern the rise in temperature as a function of the behavior of the load of woody material in terms of its thermal conductivity and as a function of equilibrium between the flow rate and the speed of the heat-

transfer fluid between the two chambers in order to obtain a predictable woody material treating result. This a common practice. The thermal conductivity of the loaded woody material, e.g. lumber, is depending on the thickness of the wood. The more woody material to be treated will meet with less thermal conductivity and will take a longer time to treat. The flow rate is dependent upon the speed of the air blower 19. The slower the blower speed will require more time and more heat output from heater 12 to treat the wood material. The heat transfer fluid speed is dependent upon the blower speed 19 and the heat source output 12. The slower the blower speed and lesser heat output will require more time to treat the woody material. Therefore, the claimed running of heating cycle at lines 15-23 of claim 8 is nothing but common sense and well known in the heating art. In other words, the slower the blower speed and the lowering of heat output and increase of wood load to be treated (decrease thermal conductivity) will slow the operating running cycles of the heating. Conversely, the faster blower speed, the higher heat output source and the lesser workload (increase thermal conductivity) will hasten the operating running heating cycles. Regarding the term "equilibrium", it is nothing but a balance between two factors of air flow rate and the heat-transfer fluid speed. Such claimed "equilibrium" has already taken in consideration in the examples given above. With regard to the claimed characteristics of the final product, (last 3 lines of claim 8), this is an inherent outcome because all woody material products will possess some kind of characteristics in its mechanical, acoustic and insulating properties due to their original treatment process. If a woody material was heat treated by an inferior or defective treatment process, the characteristics or properties of the end product will be severely affected in physical, acoustic and insulating characteristics or properties. With regard to claims 12-22 the claimed mathematical formula and

temperature ranges are deemed to be an obvious matter of operation in order to obtain an optimal result. The claimed mathematical formula in claims 12-22 is nothing but the optimal heating running cycles based on the common sense practice as explained above.

8. Claims 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weis (U. S. Pat. 3,744,144).

Weis teaches a method of treating top and bottom sealed woody material within two chambers (at 30 and at 44). The high temperature heat treatment is controlled by monitoring means 60, humidity sensors 27, temperature sensors 70, 76, heating means 26 and circulating heat transfer fluid 24. After the high temperature heat treatment, the resultant woody material will posses or preserve some kind of physical properties with mechanical, acoustic and insulating characteristics. The heating method is same as claimed in claim 8. With regard to the claimed mathematical functions and formula (lines 15-23 of claim 8), they are deemed to be conventional and well known in the heating art. Therefore, it would have been obvious to one skill in the art at the time the invention was made to govern the rise in temperature as a function of the behavior of the load of woody material in terms of its thermal conductivity and as a function of equilibrium between the flow rate and the speed of the heat-transfer fluid between the two chambers in order to obtain a predictable woody material treating result. This a common practice and a common sense. The thermal conductivity of the loaded woody material 22, e.g. lumber, is depending on the thickness of the wood 22. The more woody material to be treated will meet with less thermal conductivity and will take a longer time to treat. The flow rate is dependent upon the speed of the air blower 24. The slower the blower speed 24 will require more time and more heat output from heater 26 to treat the wood material 22. The heat transfer fluid speed is dependent upon the

blower speed 24 and the heat source output 26. The slower the blower speed 24 and lesser heat output 26 will require more time to treat the woody material 22. Therefore, the claimed running of heating cycles as stated at lines 15-23 of claim 8 is nothing but common sense and well known in the heating art. In other words, the slower the blower speed and the lowering of heat output and increase of wood load to be treated (decrease thermal conductivity) will slow the operating running cycles of the heating. Conversely, the faster blower speed, the higher heat output source and the lesser workload (increase thermal conductivity) will hasten the operating running heating cycles. Regarding the term "equilibrium", it is nothing but a balance between two factors of air flow rate and the heat-transfer fluid speed. Such claimed "equilibrium" has already taken in consideration in the examples given above. With regard to the claimed characteristics of the final product, (last 3 lines of claim 8), this is an inherent outcome because all woody material products will possess some kind of characteristics in its mechanical, acoustic and insulating properties due to their original treatment process. If a woody material was heat treated by an inferior or defective treatment process, the characteristics or properties of the end product will be severely affected in physical, acoustic and insulating characteristics or properties. With regard to claims 12-22 the claimed mathematical formula and temperature ranges are deemed to be an obvious matter of operation in order to obtain an optimal result. The claimed mathematical formula in claims 12-22 is nothing but the optimal heating running cycles based on the common sense practice as explained above.

9. Claims 8-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Little (U. S. Pat. 5,325,604).

Little teaches a method of treating top and bottom sealed woody material 22 within two chambers (at 70 and at 72). The high temperature heat treatment is controlled by monitoring means 30, humidity sensors 76, temperature sensors 74, heating means 32 and circulating heat transfer fluid 40. The heating method is same as broadly claimed in claim 8. After the high temperature heat treatment, the resultant woody material will posses or preserve some kind of physical properties with mechanical, acoustic and insulating characteristics. With regard to the claimed mathematical functions and formula (lines 15-23 of claim 8), they are deemed to be conventional and well known in the heating art. Therefore, it would have been obvious to one skill in the art at the time the invention was made to govern the rise in temperature as a function of the behavior of the load of woody material in terms of its thermal conductivity and as a function of equilibrium between the flow rate and the speed of the heat-transfer fluid between the two chambers in order to obtain a predictable woody material treating result. This is a common practice and common sense. The thermal conductivity of the loaded woody material, e.g. lumber 22, is depending on the thickness of the wood 22. The more woody material to be treated 22 will meet with less thermal conductivity and will take a longer time to treat. The flow rate is dependent upon the speed of the air blower 38. The slower the blower speed 38 will require more time and more heat output from heater 32 to treat the wood material 22. The heat transfer fluid speed 40 is dependent upon the blower speed 38 and the heat source output 32. The slower the blower speed 38 and lesser heat output 32 will require more time to treat the woody material 22. Therefore, the claimed running of heating cycles at lines 15-23 of claim 8 is nothing but

common sense and well known in the heating art. In other words, the slower the blower speed 38 and the lowering of heat output 32 and increase of wood load to be treated 22 (decrease thermal conductivity) will slow the operating running cycles of the heating. Conversely, the faster blower speed, the higher heat output source and the lesser workload (increase thermal conductivity) will hasten the operating running heating cycles. Regarding the term "equilibrium", it is nothing but a balance between two factors of air flow rate and the heat-transfer fluid speed. Such claimed "equilibrium" has already taken in consideration in the examples given above. With regard to the claimed characteristics of the final product, (last 3 lines of claim 8), this is an inherent outcome because all woody material products will possess some kind of characteristics in its mechanical, acoustic and insulating properties due to their original treatment process. If a woody material was heat treated by an inferior or defective treatment process, the characteristics or properties of the end product will be severely affected in physical, acoustic and insulating characteristics or properties. With regard to claims 12-22 the claimed mathematical formula and temperature ranges are deemed to be an obvious matter of operation in order to obtain an optimal result. The claimed mathematical formula in claims 12-22 is nothing but the optimal heating running cycles based on the common sense practice as explained above.

Response to Arguments

10. Applicant's arguments filed on 3/15/10 with respect to claims have been considered but are not persuasive to overcome the rejection. First, the applicant appears to rely on the newly added term "ligneous material" for patentability. The examiner considers the claimed "ligneous

material" is same as the woody material as shown by the prior art references as applied. If the applicant disagrees with the examiner's interpretation, then, a rejection of all claims under the first paragraph of 35 USC 112 will be necessary. In the meantime, the applicant must point out from the original specification to show such support for the newly added term "ligneous material". It is noted that the applicant still did not explain where in the originally filed specification shows such newly added term "ligneous material". If the applicant can not show the specific support for this newly added term "ligneous material" from the original specification, a rejection under 35 USC 112, 1st paragraph will be issued. Second, the claims presented fail to define over the prior art references. The claimed heating process is solely based on lines 15-23 of claim 8 and carried out by the old and known lumber heating apparatus (claim 8, lines 1-18). All prior art references applied pertain to the high temperature heat treatment of woody or ligneous material same as the applicant's. Each and every piece of the prior art references does show the claimed well known lumber heating device like, two chambers, monitoring means, humidity sensors, temperature sensors, heating means, blower, regulator, heat transfer fluid, lumbers to be treated identical as claimed. Therefore, to operate these well known lumber heating devices in accordance with lines 15-23 of claim 8 is strictly a common sense as explained in the rejection above. Second, on pages 9-11 of the Remarks, the applicant argues that the claimed process deals with a high temperature treatment of woody material or ligneous material. The prior art references do not teach the claimed process of high temperature heat treating ligneous material or woody material. This line of argument is not convincing because the prior art patents to Rosenau, Weis and Little do treat woody material in a high temperature envorinment same as the applicant's. The applicant simply failed to amend the process claims at

issued to define over the kiln drying woody materials or products in the prior art references. Broad claim 8 recites no specific high temperature, e.g. 190-230 C^0. The prior art references to Rosenau, Weis and Little do show such high temperature heat treatment of the woody material same as the broadly high temperature heat treatment of "ligneous material". The applicant is requested to point out from the claims exactly which limitation(s) that the prior art references do not teach or show. Third, on pages 12-13 of the Remarks, the applicant argues that the term "high temperature" in the claims has specific meaning in the art. However, the examiner must accord all claim language with its broadest reasonable interpretation. The examiner will not accept the term "high temperature" in broad claim 8 has a different meaning from the cited prior art patents in order to gain patentability. Third, on pages 13-14 of the Remarks, the applicant argues that the broadly claimed formula (lines 15-23 of claim) is not supported by any documents. However, the common sense is usually recognized by one with ordinary level skill in the art. The claimed formula contains nothing but control or adding of heating cycles in response to the rise in temperature as a function of the behavior of the load of woody material in terms of its thermal conductivity and as a function of equilibrium between the flow rate and the speed of the heat-transfer fluid between the two chambers in order to obtain a predictable woody material treating result. The examiner is convinced that this is a common practice and common sense. The applicant can not deny and did not deny that the thermal conductivity of the loaded woody material, e.g. lumber is depending on the thickness of the wood. The more woody material to be treated will meet with less thermal conductivity and will take a longer time to treat. The flow rate is dependent upon the speed of the air blower. The slower the blower speed will require more time and more heat output from heater to treat the woody material. The heat

transfer fluid speed is dependent upon the blower speed and the heat source output. The slower the blower speed and lesser heat output will require more time to treat the woody material. Therefore, the claimed running of heating cycles at lines 15-23 of claim 8 is nothing but common sense and well known in the heating art. In other words, the slower the blower speed and the lowering of heat output and increase of wood load to be treated (decrease thermal conductivity) will slow the operating running cycles of the heating. Conversely, the faster blower speed, the higher heat output source and the lesser workload (increase thermal conductivity) will hasten the operating running heating cycles. Regarding the term "equilibrium", it is nothing but a balance between two factors of air flow rate and the heat-transfer fluid speed. Such claimed "equilibrium" has already taken in consideration in the examples given above. The applicant did not respond or dispute the examiner's interpretation of the operations in the prior art patents. It is the examiner's position that the claimed heating formula to obtain an optimal result is obvious because the results would have been predictable (see KSR International Co. v. Teleflex, Inc. 82 USPQ 2d 1385 (2007). Finally, the claimed physical characteristics of the final end product of the woody material, this is deemed to be inherent. After the high temperature heat treatment, the resultant woody material will posses or preserve some kind of physical properties with mechanical, acoustic and insulating characteristics. The broad claims fail to recite what the physical characteristics are. What is the mechanical, acoustic and insulating property of the woody material before treatment and after treatment?

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jiping Lu whose telephone number is 571 272 4878. The examiner can normally be reached on Monday-Friday, 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, KENNETH RINEHART can be reached on 571-272-4881. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jiping Lu/
Primary Examiner
Art Unit 3743

J. L.